

REMARKS

The Office Action of November 7, 2008 was received and carefully reviewed. Reconsideration and withdrawal of the currently pending rejections are requested for the reasons advanced in detail below.

Claims 1-4, 10-31, 33-38 and 40-56 were pending prior to the instant amendment with claims 24-31, 33-38, 40-44, 48-50 and 54-56 being withdrawn from consideration. By this amendment, claims 1-3 are amended. Consequently, claims 1-4, 10-23, 45-47 and 51-53 are currently pending for consideration in the instant application, of which claims 1-3 are independent.

In the Office Action, the claims listing indicators were objected to. With respect to the objection to the claims, the Examiner suggests adding “Amended” and “Withdrawn – Amended” to claims 19, 24, 29, 31, 36, 38 and 43. However, Applicants contend that the terms “Amended” and “Withdrawn – Amended” more appropriately should read --Previously Presented-- and --Withdrawn/Previously Presented--, instead in order to correctly indicate the current claim status. The term “Amended” implies that an amendment is currently shown verses --Previously Presented-- means something occurred to the claim previously which is correct. Thus, Applicant respectfully requests that the objection to the claims be withdrawn.

Additionally, claims 1, 10, 13, 16, 19, 22, 45 and 51 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Pat. Pub. 2003/0104141 to Amato-Wierda et al. (Amato-Wierda) in view of WO 01/27969, which is equivalent to U.S. Patent No. 6,827,870 to Gianchandani et al. (Gianchandani) and claims 2, 3, 11, 12, 14, 15, 17, 18, 20, 21, 23, 46, 47, 52 and 53 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Amato-Wierda in view of Gianchandani and U.S. Patent No. 6,777,880 to Morfill et al. (Morfill). Amato-Wierda in view of Gianchandani and/or Morfill, however, fails to make obvious the

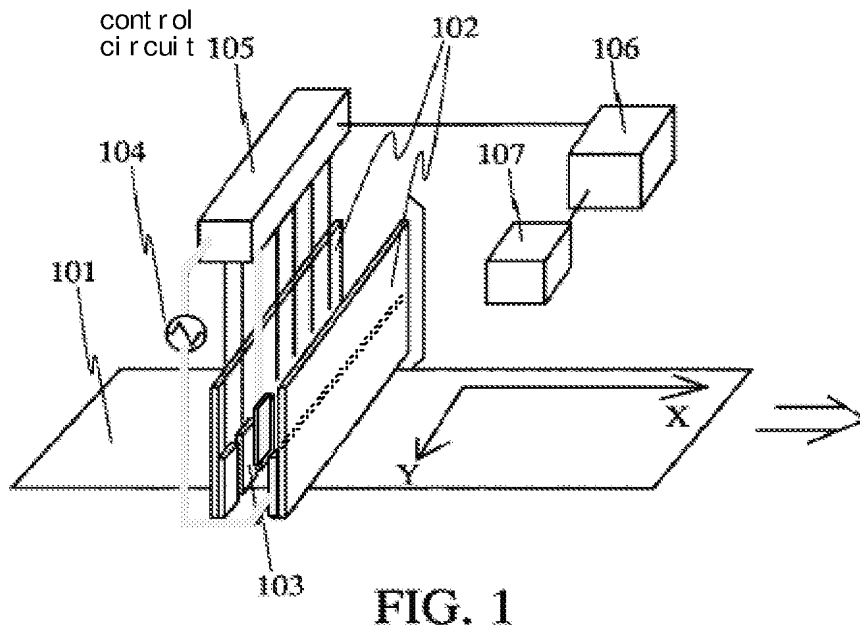
claimed invention. Each of the claims recite a specific combination of features that distinguishes the invention from the prior art in different ways. For example, independent claims 1-3, as amended, each recite a combination that includes, among other things:

a unit adapted to selectively apply a voltage to only at least one selected electrode among the plurality of second electrodes.

At the very least, Amato-Wierda in view of Gianchandani and/or Morfill fails to teach or disclose any of these exemplary features recited in independent claims 1-3.

With respect to these rejections, it should be noted that the present description recites “[I]n the case of generating plasma under atmospheric pressure, a particle is easily generated due to generation of high-density plasma. The particle is to be a cause of a defect such as a point defect or a line defect in a display portion of a display device. The present invention is offered in view of the above problems, and it is an object of the invention to provide a plasma treatment apparatus for suppressing generation of a particle. Plasma is generated in a limited minimum region to be treated by a plasma treatment over a substrate to be treated” (from page 1, lines 26 to page 2, line 6 of specification). To achieve this objective, the claimed invention recites the feature of “a unit adapted to ***selectively*** apply a voltage to at least one electrode among the plurality of second electrodes.” Concretely, this feature is illustrated by the below figure. By selectively apply a voltage to the plurality of second electrodes, plasma is generated in a limited minimum region.

Accordingly, Applicant has amended claims 1-3 as noted above in order to clarify this feature (for strengthening below argument) and to recite “a unit adapted to selectively apply a voltage to only at least one selected electrode among the plurality of second electrodes.”



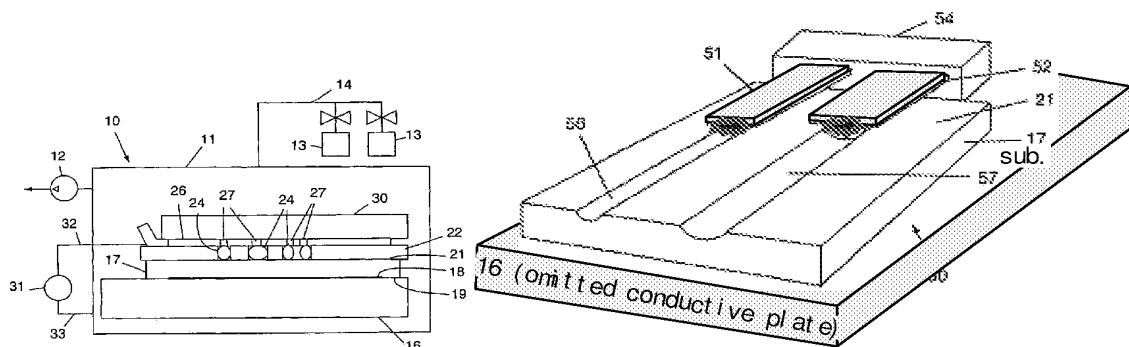
On the other hand, Gianchandani discloses “*The voltage may be **applied to the electrode segments 51 and 52** by a single voltage source at a single voltage level, or different voltages from multiple voltage sources (or the use of voltage dividers to provide multiple voltage sources from a single power supply) may be **supplied to the electrode segments 51 and 52** to select the voltage that is applied between each electrode segment and the substrate*” (col. 7, lines 11-18). That is, Gianchandani does not disclose the feature that a voltage is selectively applied to **only a selected electrode**, as presently claimed. Applicant contends that the distinction is derived from the difference in objectives between the present invention and Gianchandani. The present invention is to generate plasma in a limited minimum region and it seems that one of the Gianchandani’s inventions is to operate the electrode segment 51 to carry out an anisotropic etch in a trench 56 while operating the electrode segment 52 to carry out an isotropic etch to form a trench 57 at the same time.

Moreover, if 51-52 of Gianchandani are combined to 56 of Fig. 5 in Amato-Wierda’s structure which discloses “*wherein the first electrode and the second electrodes are arranged*

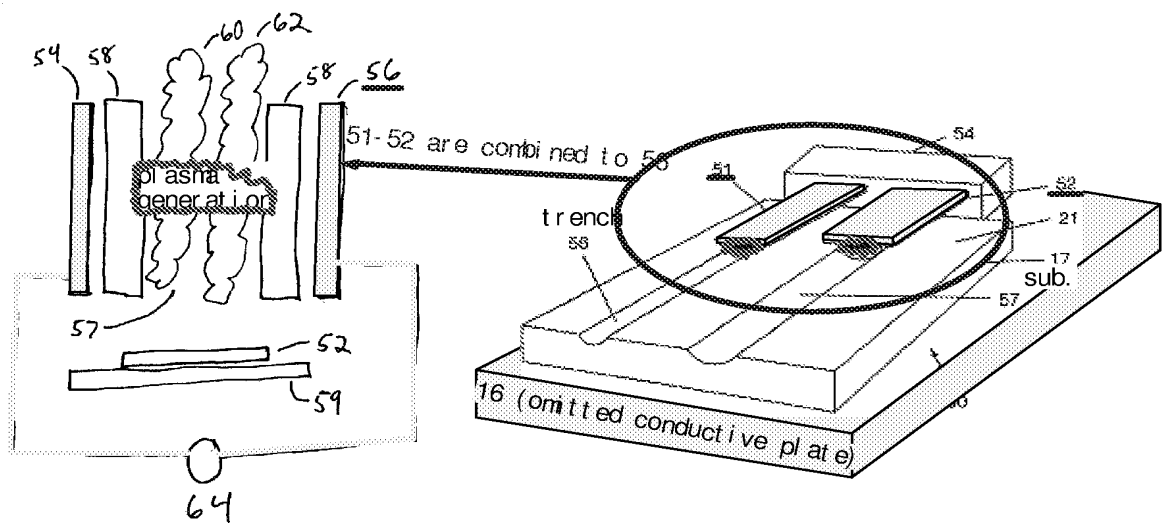
perpendicular to a subject substrate,” it appears that one of the objectives (etching substrate being interposed between top and bottom electrodes) of Gianchandani can not be achieved in the combination with Amato-Wierda. Thus, Applicant contend that it would not be obvious to one of ordinary skills in the art at the time of the invention to combine the plurality of second electrodes as taught by Gianchandani with the Amato-Wierda apparatus which discloses “*the first and second electrode are arranged perpendicular to a subject substrate.*”

Please note that the claimed amendment and the above argument can be applied to the rejection of claims 2 and 3, as well.

[Figs. 1 and 3 of Gianchandani]



[Fig. 5 of Amato-Wierda and Fig. 3 of Gianchandani]



In accordance with the M.P.E.P. § 2143.03, to establish a *prima facie* case of obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 409 F.2d 981, 180 USPQ 580 (CCPA 1974). “All words in a claim must be considered in judging the patentability of that claim against the prior art.” *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 196 (CCPA 1970). Therefore, it is respectfully submitted that neither Amato-Wierda, Gianchandani nor Morfill, taken alone or in any proper combination, discloses or suggests the subject matter as recited in claims 1-3. Hence, withdrawal of the rejection is respectfully requested.

In view of the foregoing remarks, this claimed invention, as amended, is not rendered obvious in view of the prior art references cited against this application. Applicant therefore requests the entry of this response, the Examiner’s reconsideration and reexamination of the application, and the timely allowance of the pending claims.

In discussing the specification, claims, and drawings in this response, it is to be understood that Applicant in no way intends to limit the scope of the claims to any exemplary embodiments described in the specification and/or shown in the drawings. Rather, Applicant is entitled to have the claims interpreted broadly, to the maximum extent permitted by statute, regulation, and applicable case law.

Should the Examiner believe that a telephone conference would expedite issuance of the application, the Examiner is respectfully invited to telephone the undersigned agent at (202) 585-8100.

Respectfully submitted,

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